

WHAT IS CLAIMED IS:

- Subt. a1*
1. An in-plane switching liquid crystal display device comprising:
- a gate line on a first substrate;
- a data line on the first substrate, the data line being perpendicular to the gate line;
- 5 a common line on the first substrate, the common line being parallel with the gate line and being formed of a metal;
- a pixel electrode and a common electrode on the first substrate, the pixel and common electrodes being formed of a transparent conductive material; and
- a liquid crystal layer between the first and second substrates.

- 10
2. The device of claim 1, wherein the transparent conductive material includes indium tin oxide (ITO).

- Sub B1*
- 15 3. The device of claim 1, wherein the transparent conductive material includes indium zinc oxide (IZO).

4. The device of claim 1, further comprising an auxiliary common line on the first substrate, the auxiliary common line being connected with the common electrode.

5. The device of claim 4, wherein the auxiliary common line includes indium tin oxide (ITO).

6. The device of claim 4, wherein the auxiliary common line includes indium zinc oxide (IZO).

7. The device of claim 1, wherein the gate and common lines include a material selected from a group consisting of chromium (Cr), aluminum (Al), aluminum alloy (Al alloy), molybdenum (Mo), tantalum (Ta), tungsten (W), antimony (Sb), and an alloy thereof.

8. The device of claim 1, further comprising a first alignment layer on the first substrate.

9. The device of claim 1, wherein the first alignment layer is selected from a group consisting of polyimide and photo-alignment material.

10. The device of claim 1, further comprising a thin film transistor at an intersection of the gate and data lines.

11. The device of claim 5, wherein at least one of the pixel and common electrodes is on the same layer with the gate electrode.

rel
C1

C

12. The device of claim 1, further comprising a gate-insulating layer over the pixel electrode.

Sub
B3

13. The device of claim 12, further comprising a passivation layer over the gate-insulating layer.

14. The device of claim 13, wherein the common electrode is on the passivation layer.

15. The device of claim 13, further comprising a black matrix on the passivation layer.

16. The device of claim 15, wherein the black matrix includes the same material as the pixel electrodes.

C

009737770-121800

rel
C

17. ~~An in-plane switching Liquid Crystal Display (LCD) device, comprising:~~
- ~~a first substrate and a second substrate~~
 - ~~a gate line on the first substrate;~~
 - ~~a metal common line on the first substrate, the common line parallel to the gate line.~~
 - ~~a data line on the first substrate, the data line being perpendicular to the gate line;~~
 - ~~a common electrode on the first substrate;~~
 - ~~a thin film transistor having a gate electrode, a source electrode and a drain electrode formed on the first substrate;~~
 - ~~liquid crystal interposed between the first and second substrates;~~
 - ~~a pixel electrode contacting the drain electrode of the thin film transistor; and~~
 - ~~wherein, the pixel and common electrodes are formed of a transparent conductive material.~~

18. The LCD device of claim 17, wherein a portion of the common line overlies a portion of the common electrode.

19. The LCD device of claim 17, wherein a portion of the common electrode overlies a

portion of the common line.

20. The LCD device of claim 17, further comprising storage electrode.

5 21. The LCD device of claim 20, wherein the storage electrode contacts the pixel electrode through a storage contact hole.

22. The LCD device of claim 20, wherein the storage electrode is between the pixel electrode and the first substrate.

10 23. The LCD device of claim 17, further comprising an auxiliary common electrode covering the common line, wherein the common electrode is electrically connected to the auxiliary common electrode.

24. The LCD device of claim 23, wherein the auxiliary common electrode is formed of the same transparent material as the common electrode.

25. The device of claim 23, wherein the auxiliary common electrode includes indium tin

009737770 121800

oxide (ITO).

26. The device of claim 23, wherein the auxiliary common line includes indium zinc oxide (IZO).

5

27. The LCD device of claim 23, further comprising a common pad at an end of the common line.

28. The LCD device of claim 17, further comprising an auxiliary gate line and a gate pad covering the gate line and the gate pad.

10

29. The LCD device of claim 28, wherein the auxiliary gate line is formed of the same transparent conductive material as the common electrode.

30. The device of claim 28, wherein the auxiliary gate line includes indium tin oxide (ITO).

15

31. The device of claim 28, wherein the auxiliary gate line includes indium zinc oxide

(IZO).

32. The LCD device of claim 17, further comprising a black matrix on the second substrate.

33. The LCD device of claim 17, wherein the transparent conductive material includes indium tin oxide (ITO).

34. The LCD device of claim 17, wherein the transparent conductive material includes indium zinc oxide (IZO).

35. An in-plane switching Liquid Crystal Display (LCD) device, comprising:

a first substrate and a second substrate

a gate line on the first substrate;

a metal common line on the first substrate, the common line parallel to the gate line.

a data line on the first substrate, the data line being perpendicular to the gate line;

a common electrode formed of a transparent conductive material on the first substrate;

a thin film transistor having a gate electrode, a source electrode and a drain electrode
formed on the first substrate;

liquid crystal interposed between the first and second substrates; and

a pixel electrode formed of an opaque metal contacting the drain electrode of the thin

5 film transistor.

36. The LCD device of claim 35, further comprising a black matrix formed of the same
opaque metal as the pixel electrode.

10 37. The LCD device of claim 36, wherein the opaque metal is Cr.

39. The LCD device of claim 35, wherein the opaque metal is Cr.

add c 2